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JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: 111 194.

(43) Date of publication of application: 30.04.

(51) Int. Cl. G03F 7/40
G03F 7/039, H01L 21/027

(21) Application number: 09280783
(22) Date of filing: 14.10.1997

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(54) FORMATION OF RESIST PATTERN

(57) Abstract:

PROBLEM TO BE SOLVED: To realize a technique for making resist patterns finer without depending on a short-wavelength light, such as ArF light (wavelength 198 nm).

SOLUTION: A positive resist 12 is first applied on a film 10 to be formed. Next, the positive resist is exposed by using a prescribed mask 14. The patterns of the mask are transferred to the positive resist by exposing the positive resist via the mask. Next, the positive resist is developed to form temporary resist patterns 12a. Hole patterns 16a are formed in the positions of the temporary resist patterns corresponding to the opening parts b of the mask. The temporary resist patterns are baked after development. The temporary resist patterns are deformed by this baking, by which the resist patterns 12b are formed. The baking of the resist is intrinsically carried out for the purpose of removing the residual solvent and residual moisture but in this embodiment, the baking is executed at a temp. higher than the temp. of the ordinary baking for the purpose described above. The baking is executed at a temp. higher than usual in such a manner to reduce the size of the tem-

porary resist patterns. Consequently, the bore hole patterns is reduced and the novel hole p 16b are formed.

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